



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,775	07/14/2003	Chao-Chin Wu	1496-888	6049
7590	03/29/2005		EXAMINER	
John S. Egbert Harrison & Egbert 7th Floor 412 Main Street Houston, TX 77002				AVERY, BRIDGET D
		ART UNIT		PAPER NUMBER
		3618		
DATE MAILED: 03/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

*(P)*

## Office Action Summary

Application No.	WU, CHAO-CHIN	
10/618,775	Examiner	Art Unit
	Bridget Avery	3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 29 November 2004.  
2a) This action is FINAL.                    2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 1-3 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_\_ is/are allowed.  
6) Claim(s) 1-3 is/are rejected.  
7) Claim(s) \_\_\_\_\_ is/are objected to.  
8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

**DETAILED ACTION**

1. The preliminary amendment filed by applicant on July 14, 2003 is acknowledged and has been entered.

***Specification***

2. It is suggested that applicant amend the abstract to read "A wheel structure for an electric wheelchair..."

***Claim Objections***

3. Claim 1 objected to because of the following informalities: on line 5, --the-- should be inserted before "axle". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 recites the limitation "the electric wheelchair" in line 1. There is insufficient antecedent basis for this limitation in the claim.
5. Regarding claims 1 and 3, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Lawson, Jr. (US Patent 6,631,925).

Lawson teaches a wheel structure on an electric wheelchair (10), the wheel structure including an axle (20) fastened to a body frame of the electric wheelchair (10), a brake device (50) mounted on an outer end of the axle (20), a cover (note element surrounding drum/disk 52 and band/shoe 53 as clearly shown in Figures 6-8) mounted on the outer end of the axle (20), an assembly drum/disk (52) mounted on the outer end of the axle (20), and a wheel frame (clearly shown in Figure 6) mounted on the outer end of the axle (20), the brake device (50) including a brake band/shoe (53), an actuating rod, and a brake seat on which the brake band/shoe (53) and the actuating rod are mounted; the axle (20) has an inner end which is fitted into an axle tube (48); the brake seat of the brake device (50) is provided in an inner side with an hollow tubular portion for locating the brake seat and the, the hollow tubular portion is fitted over the axle tube (48), as clearly shown in Figures 6 and 7 . The axle tube (48) has an outer threaded portion (55); the hollow tubular portion of the brake seat is provided with an inner threaded portion (inherently taught) where the hollow tubular portion is fitted

over the axle tube (48) in such an manner that the inner threaded portion of the hollow tubular portion is engaged with the outer threaded portion of the axle tube (48). The brake seat of the brake device (50) being positioned by a locating plate (also clearly shown in Figure 6) and the locating plate is fastened at one end (via bolt 51) to the brake seat, and at another end to the body frame (via axle 20) of the electric wheelchair (10).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Novak shows a wheel mounting.

Bellehumeur et al. shows a brake for inline skates.

Ebbinghaus shows an arrangement of a brake disc on a wheel hub.

Goettker shows a disk brake assembly for wheel of a trailer.

Perez shows a brake and wheel assembly.

Erdmann shows a disk brake for vehicles, especially for motorcycles.

Beatty shows a convertible rail-highway vehicle axle assembly.

Boyles shows disk brakes.

Lockmann shows a brake disk and support means therefor.

Art Unit: 3618

8. Any inquiry concerning this communication should be directed to Bridget Avery at telephone number 703-308-2086.

*Bridget Avery*  
Avery

March 16, 2005

*J.P. Elliot*  
JAMES P. ELLIOT  
CHIEF PATENT EXAMINER  
EXAMINER FOR COMPUTER PROGRAMS  
TELECOMMUNICATIONS